

WHAT IS CLAIMED IS:

1. A method for communicating to a sender an availability of receiving a new message in a plurality of buffers each having at least one slot for storing the new message comprising:

determining whether there is at least one slot available in each of the buffers for receiving the new message; and

providing a credit signal that communicates to the sender only when all of the buffers have at least one of the at least one slot available for storing the new message.

2. A method according to claim 1 further comprising monitoring the buffers to determine whether at least one of the at least one slot in each of the buffers is available for storing the new message.

3. A method according to claim 1 further comprising providing a count for each of the buffers.

4. A method according to claim 3 further comprising decrementing each count when all of the buffers have the at least one slot available for storing the new message.

5. A method according to claim 4 further comprising configuring at least one of the buffers to receive a particular message type.

6. A method according to claim 5 further comprising:

receiving the new message from the sender having an associated message type;

5 loading the new message into the slot of a particular at least one of the buffers which is configured for receiving the particular message type of the new message.

10 7. A method according to claim 6 further comprising determining the particular message type of the new message.

15 8. A method according to claim 7 further comprising incrementing the count of each of the buffers in which the new message was not loaded.

20 9. A method according to claim 8 further comprising, after the loaded new message is freed from the buffer in which it was loaded, incrementing the count of the buffer in which the new message was loaded.

10. A method according to claim 9 wherein each of the buffers includes a plurality of slots.

25 11. A method according to claim 10 further comprising:

initializing the slots of the buffers; and
prior to loading a first message into the initialized slots of the buffers, setting each of the counts equal to the number of the initialized slots in its corresponding buffer.

12. A method according to claim 1 wherein the plurality of buffers includes six buffers.

5 13. A method according to claim 1 further comprising configuring each of the buffers with a different particular message type.

10 14. A system for communicating to a sender an availability of receiving a new message comprising:

15 a plurality of buffers each having at least one slot for storing a message; and

15 a credit signal generator that communicates to the sender only when all of the plurality of buffers have at least one of the at least one slot available for storing the new message.

20 15. A system according to claim 14 further comprising a monitor that monitors each of the buffers to determine whether at least one of the at least one slot is available for storing the new message.

25 16. A system according to claim 14 further comprising a corresponding counter for each of the buffers.

25 17. A system according to claim 16 wherein each counter is configured to be decremented when all of the buffers have the at least one slot available for storing the new message.

30 18. A system according to claim 17 wherein each of the buffers is configured to receive a particular message type.

19. A system according to claim 18 wherein at least one of the slots of a particular buffer which is configured for receiving the particular message type of the new message is configured to load the new message received from the sender.

20. A system according to claim 19 further comprising a message type discriminator configured to determine the particular message type of the new message received from the sender.

21. A system according to claim 20 wherein the counter of each of the buffers in which the new message was not loaded is configured to be incremented.

22. A system according to claim 21 wherein the counter of the buffer in which the new message was loaded is configured to be incremented after the loaded new message is freed.

23. A system according to claim 22 wherein each of the buffers includes a plurality of slots.

24. A system according to claim 23 wherein the slots of the buffers are initialized and wherein prior to loading a first message into the initialized slots of the buffers, each of the counters of the initialized slots are configured to be set equal to the number of the initialized slots in its corresponding buffer.

25. A system according to claim 14 wherein the plurality of buffers includes six buffers.

26. A system according to claim 17 wherein at least two of the buffers are configured to receive a different particular message type.